

## CLAIMS

1. A cryptographic method during which an integer division of the type  $q = a \text{ div } b$  and/or a 5 modular reduction of the type  $r = a \text{ mod } b$  is performed, with  $q$  a quotient,  $a$  a number of  $m$  bits,  $b$  a number of  $n$  bits,  $n$  less than or equal to  $m$  and  $b_{n-1}$  non zero,  $b_{n-1}$  being the most significant bit of the number  $b$ , characterised in that the number  $a$  is masked by a 10 random number  $\rho$  before performing the integer division and/or the modular reduction.

2. A method according to Claim 1, during which, in order to mask the number  $a$ ,  $b$  times the random number  $\rho$  ( $a \leftarrow a + b*\rho$ ) is added to the number  $a$ .

15 3. A method according to Claim 1 or Claim 2 in which, after having performed an integer division, the contribution made by the random number  $\rho$  is taken away from the result of the integer division.

20 4. A method according to Claim 3 in combination with Claim 2, during which, in order to take away the contribution made by the random number  $\rho$ , the said random number  $\rho$  is subtracted from the result of the integer division.

25 5. A method according to one of Claims 1 to 4, during which the random number  $\rho$  is modified at each implementation of the method.

6. A method according to one of Claims 1 to 4, during which the random number  $\rho$  is modified after a predetermined number of implementations of the method.

30 7. An electronic component comprising means for

implementing a method according to one of the preceding claims, the programmed calculation means comprising in particular several registers for storing the numbers a and b.

5 8. A chip card comprising a component according to the preceding claim.